APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/239,659	01/29/1999	THOMAS A. DYE	5143-01700	6412

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EXAMINER
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ART UNIT	PAPER NUMBER
2186	

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE f this communication appears on the cover sheet with the c rrespondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 January 2003</u> .

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-3,5-38,40-46,58-70 and 95-122* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *1-3,5-25,37,38,40-46,107 and 108* is/are allowed.

6) ☒ Claim(s) *26-36,58-60, 67-70, 95-106, and 109-122* is/are rejected.

7) ☒ Claim(s) *61-66* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Detailed Action

1.   Claims 1-3, 5-38, 40-46, 58-70 and 95-122 are presented for examination. This office

action is in response to the amendment filed on 1/8/03.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
> use or on sale in this country, more than one year prior to the date of application for patent in the United
> States.

3.   Claim 26 is rejected under 35 USC 102(b) as being anticipated by *Dawon*, U.S. Patent

5,553,160.

As to claim 26, *Dawson* discloses the invention as claimed. *Dawson* discloses a

computer system utilizing storage of data, the computer system (Fig. 1 A) comprising: a system

memory (abstract line 6); a memory controller includes a compression/decompression (Fig. 1B

and col. 8 lines 20-30); receiving uncompressed data (Fig. 1B); determining a compression mode

for the data, wherein the compression mode comprises one of lossless compression, lossy

compression, or no compression (abstract lines 12-18); selectively compressing the

uncompressed data, wherein the compressing is selectively performed in response to the

compression mode for the data; and storing the data in the memory (abstract lines 12-18).

4.   Claim 31 and 35 are rejected under 35 USC 102(b) as being anticipated by <u>Pelanek et al.</u>

<u>(Pelanek) US Patent 5,724,582</u>.

       <u>As to claims 31 and 35</u>, <u>Pelanek</u> discloses the invention as claimed. <u>Pelanek</u> discloses a

method for storing data in a memory in a computer system (Fig. 3), the method comprising:

receiving uncompressed data (Fig. 3); receiving one or more destination addresses indicating a

storage destination (Fig. 5 and abstract); determining a compression mode for the data (Fig. 5 and

abstract); selectively compressing the data (Fig. 5 and abstract); and storing the data (Fig. 5 and

abstract).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

6.   Claims 27-30, 95-106, and 109-122 are rejected under 35 U.S.C. 103(a) as being

unpatentable over *Dawon*, U.S. Patent 5,553,160 in view of <u>Pelanek et al. (Pelanek) US Patent</u>

<u>5,724,582</u>.

       <u>As to claim 27</u>, Dawson discloses the invention as claimed in the above. However,

Dawson does not specifically disclose address range and/or a data type of the data. Pelanek

discloses address range and/or a data type of the data (Fig. 5 and abstract) for the purpose of

increasing the access speed (col. 6 lines 44-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to incorporate address range and/or a data type of the data as shown in

Pelanek into the invention of Dawson because it would allow to increase the access speed.

As to claim 28, Dawson and Pelanek disclose the invention as claimed in the above.

Pelanek further discloses memory controller is operable to receive one or more destination

addresses and to analyze the one of more destination addresses to determine the compression

mode (col. 6 lines 44-55).

As to claim 29, Dawson and Pelanek disclose the invention as claimed in the above.

Dawson further discloses requesting agents (col. 8 lines 20-30).

As to claim 30, Dawson and Pelanek disclose the invention as claimed in the above.

Pelanek further discloses types of data (col. 6 lines 44-55).

As to claim 95, Dawson discloses the invention as claimed. Dawson discloses a method

for storing data in a memory(abstract line 6) in a computer system (Fig. 1A), the method

comprising: allocating a memory block (abstract); receiving uncompressed data (Fig. 1B);

compressing the uncompressed data (abstract lines 12-18); and storing the data in the memory

(abstract lines 12-18). However, Dawson does not specifically disclose destination addresses.

Pelanek discloses destination addresses (Fig. 5 and abstract) for the purpose of increasing the

access speed (col. 6 lines 44-55).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to incorporate destination addresses as shown in Pelanek into the

invention of Dawson because it would allow to increase the access speed.

As to claims 96-97, Dawson further discloses the storing does not perform address

translation of the one or more destination addresses (system memory in abstract reads on this

limitation since physical memory does not require to have a translator).

As to claims 98-99, Dawson further discloses OS (Fig. 1A).

As to claims 100-106, Dawson further first data (abstract) and system memory (abstract).

As to claim 109, Dawson and Pelanek disclose the invention as claimed in the above.

Dawson further discloses compression/decompression engine (col. 8 lines 20-30).

As to claims 110-111, Dawson further discloses the storing does not perform address

translation of the one or more destination addresses (system memory in abstract reads on this

limitation since physical memory does not require to have a translator).

As to claims 112-113, Dawson further discloses OS (Fig. 1A).

As to claims 114-118, Dawson further first data (abstract) and system memory (abstract).

As to claims 119 and 121, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses predetermined compression ration (lossless, lossy and no compressions in abstract read on this limitation since each compression has different ratio) .

As to claim 120, Pelanek further discloses the storing does perform address translation of the one or more destination addresses (Fig. 5).

As to claims 122, Dawson and Pelanek disclose the invention as claimed in the above. Dawson further discloses OS (Fig. 1A) and first size (abstract).

7.   Claim 32-34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelanek et al. (Pelanek) US Patent 5,724,582 in view of *Dawon*, U.S. Patent 5,553,160.

As to claim 33, Pelanek discloses the invention as claimed in claim 31. Dawson further discloses agent (col. 8 lines 20-30).

As to claims 32, 34, and 36, Pelanek discloses the invention as claimed in the above.

However, Pelanek does not specifically disclose lossless, lossy and no compressions. Dawson

discloses lossless, lossy and no compressions (abstract) for the purpose of optimizing transferring

different images or data (col. 3 lines 10-15).

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to incorporate lossless, lossy and no compressions as shown in Dawson

into the invention of Pelanek because it would optimize transferring different images or data.

8.   Claims 58-60 and 67-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Dawon, U.S. Patent 5,553,160 in view of Canfield et al. (Canfield) US Patent 5,847,762.

As to claim 58, *Dawson* discloses a method for compressing data and storing the

compressed data in a memory in a computer system, the method comprising: receiving

uncompressed first data (Fig. 1B); comprising the uncompressed first data to produce

compressed first data, wherein the compressed first data has a first size (Fig. 4) ; determining if

the first size of the compressed first data is greater than an allocated memory block size of a first

allocated memory block (Fig. 4) and an overflow information (Fig. 4 refs. 435 and 460).

However, Dawson does not specifically disclose a header. Canfield discloses creating a header

for the purpose of proper decompression (col. 5 lines 35-40)

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to incorporate creating a header as shown in Canfield into the invention

of Dawson because it would allow proper decompression.

As to claims 70, Dawson and Canfield disclose the invention as claimed in the above. *Dawson* further discloses a CPU (Fig. 1 Ref. 101), a system memory (abstract line 6); a memory controller includes a compression/decompression (Fig. 1B and col. 8 lines 20-30)

As to claims 59-60 and 67-69, Dawson and Canfield disclose the invention as claimed in the above. Canfield further discloses a header (col. 5 lines 15-40) and Dawson further discloses block size (abstract).

Allowable Subject Matter

9.   Claims 1-3, 5-25, 37-38, 40-46, 107 and 108 are allowed.

Claims 61-66 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

10.   Applicant's arguments filed on 1/8/03 have been fully considered but they are not persuasive.

Applicant's argument that the reference does not disclose a system memory and a

memory controller includes a compression/decompression is not considered persuasive.

Dawson discloses a system memory (abstract line 6 since image, data, and instruction can be stored in a system memory) and a memory controller includes a compression/decompression (Fig. 1B and col. 8 lines 20-30).

Applicant's argument that the reference does not disclose determining if the first size of the compressed first data is greater than an allocated memory block size of a first allocated memory block and an overflow information is not considered persuasive.

Dawson discloses determining if the first size of the compressed first data is greater than an allocated memory block size of a first allocated memory block (Fig. 4) and an overflow information (Fig. 4 Refs. 435 and 460).

Dawson further discloses allocating memory block (abstract).

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this

final action.

13.   When responding to the office action, Applicant is advised to clearly point out the

patentable novelty which he or she thinks the claims present in view of the state of the art

disclosed by the references cited or the objections made. He or she must also show how the

amendments avoid such references or objections.   See 37 C.F.R. § 1.111(c).

14.   When responding to the office action, Applicants are advised to provide the examiner

with the line numbers and page numbers in the application and/or references cited to assist

examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The

Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's

supervisor, Matt Kim, can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be

directed to the Group receptionist whose telephone number is (703) 305-3900.

15. **Any response to this action should be mailed to:**

> Commissioner of Patents and Trademarks
> Washington, D.C. 20231
>
> **or faxed to TC-2100:**
> After-final   (703) 746-7238
> Official   (703) 746-7239 (for formal communications intended for

entry)

> Non-Official/Draft (703) 746-7240 (for informal or draft communications, please
label "PROPOSED" or "DRAFT")

> Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
> Drive, Arlington. VA., Sixth Floor (Receptionist).

HK

Primary Patent Examiner

August 1, 2003